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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,638

06/23/2005

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270 7590 05/10/2010
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EXAMINER

VELASQUEZ, VANESSA T

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

05/10/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@howsonandhowson.com

Office Action Summary	Application No. 10/540,638	Applicant(s) YAMAKOSHI, YASUHIRO	
	Examiner Vanessa Velasquez	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,12,14-17,19,21-24 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,12,14-17,19,21-24 and 29-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 3-11, 13, 18, 20, 25-28, and 33 are canceled. Claims 1, 14, 31, and 32 are amended. Claims 1, 2, 12, 14-17, 19, 21-24, and 29-32 are pending and presented for examination on the merits. Of the pending claims, claims 1 and 2 are independent.

Status of Previous Rejections Under 35 USC § 112

The previous rejections of claims 31-33 under the first and second paragraphs of 35 U.S.C. 112 are withdrawn in view of the amended statuses of the claims.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 12, 14-17, 19, 21-24, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goyal et al. (US 5,964,966). The claims remain rejected for the same reasons described in the Office action dated 10/16/2009.

Regarding the amended portion of claim 1, the amendment incorporates the subject matter of previously pending claim 13, which was previously rejected in the Office action dated 10/16/2009. Claim 1 is rejected for the same reasons set forth therein.

3. Claims 1, 2, 12, 14-17, 19, 21-24, and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segal et al. (WO 01/94660 A2). The claims remain rejected for the same reasons described in the Office action dated 10/16/2009.

Response to Arguments

4. Applicant's arguments filed on 2/16/2010 have been fully considered but they are not persuasive.

First, Applicant argues that the nickel tantalum substrate of Goyal et al. would not have been suitable as a sputtering target for forming a gate electrode of a semiconductor device because the impurity levels required are much higher than would be suitable for the claimed use. Applicant states that Goyal et al. teaches that acceptable or "required" purity levels are those listed in lines 8-21 of column 3. In response, the Examiner respectfully disagrees and submits that Goyal et al. have been misinterpreted. Lines 8-21 in column 3 of Goyal et al. disclose that even minor amounts of impurity elements would "severely suppress" the ability of the substrate to achieve a desired cube texture. Therefore, the amounts of impurities are neither acceptable nor required, as Applicant asserts, but rather upper or maximum values for what would be considered acceptable levels of impurities. Therefore, it would follow that one of ordinary skill in the art would furthermore be motivated to reduce the amount of potential impurities to as low a level as is possible in order to promote the formation of a cube texture in the substrate.

Second, Applicant argues that the claimed sputtering target possesses unexpected properties and results as compared to the targets of Goyal et al. and Segal et al. In response, the evidence provided by Applicant is not a sufficient showing of unexpected results because it amounts to an affirmation that the claimed invention works as intended. Unexpected results must be compared with the closest prior art and be commensurate in scope with the claimed invention. See MPEP § 716.01 and MPEP § 716.02.

Third, Applicant argues that the sputtering target of Goyal et al. and Segal et al. do not have the same utility as that of the claimed invention. In response, “for gate electrode” is merely intended use and is not accorded patentable weight because it does not impart any structural limitations to the claimed invention (MPEP § 2111.01). As stated on pages 5 and 7 of the previous Office action, Goyal et al. and Segal et al. respectively teach that the compositions therein may be fashioned into sputtering target materials. This is the same utility as that claimed. Thus, the desire to minimize impurity levels would be obvious to one of ordinary skill in the sputtering target arts because the presence of unwanted elements are detrimental to the quality of the film formed by the target (see Goyal et al., col. 3, lines 8-21; see Segal et al., pages 1-2).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Velasquez whose telephone number is 571-270-3587. The examiner can normally be reached on Monday-Friday 9:00 AM-6:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached at 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vanessa Velasquez/

Examiner, Art Unit 1793

/Scott Kastler/

Primary Examiner, Art Unit 1793